

AMENDMENTS

CLAIM AMENDMENTS

- ✓ 31. (Currently amended) A method of stimulating an anti-tumor immune response or treating a neoplastic disease, comprising administering to a subject a composition comprising: either a cell genetically altered to produce a cytokine at an elevated level, or the progeny of such a cell,
a cell expressing a cytokine from a recombinant polynucleotide,
wherein the cytokine is stably associated in the cell outer membrane
(and wherein the cell has been inactivated to prevent proliferation.)
- ✓ 32. (Currently amended) The method of claim 31, wherein the cytokine is selected from the group consisting of IL-4, GM-CSF, IL-2, TNF- α , and M-CSF.
- ✓ 33. (Previously added) The method of claim 31, wherein the cell is a cancer cell.
- ✓ 34. (Currently amended) The method of claim 31, wherein the cell is from a cancer tumor of the same tissue type as a tumor in the subject.
- ✓ 35. (Currently amended) The method of claim 34, wherein the cancer tumor is an ovarian cancer or a brain cancer.
- ✓ 36. (Previously added) The method of claim 31, wherein the cell is allogeneic to the subject.
- ✓ 37. (Previously added) The method of claim 31, wherein the cell is histocompatibly identical to the subject.
- ✓ 38. (Previously added) The method of claim 31, wherein the composition further comprises a tumor-associated antigen, and wherein the combination of the cytokine and the

tumor-associated antigen in the composition is effective in treating a neoplastic disease or eliciting an anti-tumor immunological response in the subject.

39. *(Previously added)* The method of claim 38, wherein the tumor-associated antigen is obtained from a cell autologous to the subject.

✓40. *(Previously added)* The method of claim 38, wherein the tumor-associated antigen is expressed by the same cells expressing the membrane-associated cytokine.

41. *(Previously added)* The method of claim 38, wherein the composition comprises a combination of:

- a) the cell expressing the membrane-associated cytokine; and
- b) a tumor cell autologous to the subject;

wherein the combination is effective in treating a neoplastic disease or eliciting an anti-tumor immunological response in the subject.

42. *(Previously added)* The method of claim 41, wherein the tumor cell is a primary tumor cell dispersed from a solid tumor obtained from the subject.

43. *(Previously added)* The method of claim 41, wherein the tumor cell is a glioma, a glioblastoma, a gliosarcoma, an astrocytoma, or an ovarian cancer cell.

44. *(Currently amended)* The method of claim 41, wherein the tumor cell is inactivated has been inactivated by irradiation.

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45. *(Currently amended)* The method of claim 31, wherein the cell expressing the membrane-associated cytokine is inactivated has been inactivated by irradiation.

✓46. *(Previously added)* The method of claim 31, wherein the cell produces a secreted cytokine in addition to the cytokine stably associated in the outer membrane.

✓47. *(Previously added)* The method of claim 31, wherein a majority of the cytokine produced by the cell is present on the outer membrane of the cell.

B4 ✓48. *(Currently amended)* The method of claim 38, wherein the cytokine is selected from the group consisting of IL-4, GM-CSF, IL-2, TNF- α , and M-CSF.

✓49. *(Previously added)* The method of claim 31, wherein the composition comprises at least two cells, each of which has been genetically altered to produce a different cytokine at an elevated level, or is the progeny of such a cell, and wherein each cytokine is stably associated in the outer membrane of the cell.

B5 ✓50. *(Currently amended)* A method of stimulating an anti-tumor immune response or treating a neoplastic disease, comprising administering to a subject a composition comprising a tumor associated antigen and a population of cells expressing a transmembrane cytokine, wherein the cells have been inactivated to prevent proliferation, and at a level sufficient to stimulate wherein the composition is effective in stimulating an immune response to the tumor associated antigen in the subject.

51. *(Previously added)* The method of claim 31, wherein the cell is a human cell.

✓52. *(Previously added)* The method of claim 31, wherein the cytokine naturally occurs as a membrane cytokine.

✓53. *(Previously added)* The method of claim 31, wherein the cytokine is a fusion protein comprising a heterologous transmembrane region.

✓54. *(Previously added)* The method of claim 31, wherein the cell has been transduced with a retroviral expression vector, or is the progeny of such a cell.

B6 ✓55. *(Currently amended)* The method of claim 31, which is a method for stimulating a primary priming an anti-tumor immune response.

- B6* 56. (*Currently amended*) The method of claim 31, which is a method for stimulating a secondary boosting or maintaining an anti-tumor immune response.
- ✓ 57. (*Previously added*) The method of claim 31, which is a method for treating a neoplastic disease.
- ✓ 58. (*Previously added*) The method of claim 31, further comprising providing the cytokine expressing cell that is present in the composition.
- ✓ 59. (*Previously added*) The method of claim 38, further comprising providing the tumor associated antigen that is present in the composition.
- ✓ 60. (*Previously added*) The method of claim 31, further comprising transducing a cancer cell with an expression vector encoding the membrane-associated cytokine.
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61. (*New*) The method of claim 31, wherein the cytokine is IL-4.
62. (*New*) The method of claim 31, wherein the cytokine is GM-CSF.
- ✓ 63. (*New*) The method of claim 31, wherein the cytokine is M-CSF.
- B7* ✓ 64. (*New*) A method of stimulating an anti-tumor immune response or treating a neoplastic disease, comprising administering to a subject a composition containing an allogeneic cell genetically altered to produce a cytokine at an elevated level, or the progeny of such a cell, wherein the cytokine is stably associated in the cell outer membrane.
- ✓ 65. (*New*) The method of claim 64, wherein the cytokine is selected from IL-4, GM-CSF, IL-2, TNF- α , and M-CSF.

66. (New) The method of claim 64, wherein the cell is from a tumor of the same tissue type as a tumor in the subject.

✓ 67. (New) The method of claim 64, wherein the composition further comprises a tumor-associated antigen, and wherein the combination of the cytokine and the tumor-associated antigen in the composition is effective in treating a neoplastic disease or eliciting an anti-tumor immunological response in the subject.

68. (New) The method of claim 67, wherein the tumor-associated antigen is obtained from a cell autologous to the subject.

✓ 69. (New) The method of claim 67, wherein the tumor-associated antigen is expressed by the same cells expressing the membrane-associated cytokine.

B7 70. (New) The method of claim 67, wherein the composition comprises a combination of:

- a) the cell expressing the membrane-associated cytokine; and
- b) a tumor cell autologous to the subject;

wherein the combination is effective in treating a neoplastic disease or eliciting an anti-tumor immunological response in the subject.

71. (New) The method of claim 70, wherein the tumor cell is a primary tumor cell dispersed from a solid tumor obtained from the subject.

✓ 72. (New) The method of claim 64, wherein the cell expressing the membrane-associated cytokine has been inactivated to prevent proliferation.

73. (New) The method of claim 64, wherein the cell expressing the membrane-associated cytokine has been irradiated.

74. (New) The method of claim 64, wherein the cell is a human cell.

✓75. (New) The method of claim 64, wherein the cytokine naturally occurs as a membrane cytokine.

B7 ✓76. (New) The method of claim 64, wherein the cytokine is a fusion protein comprising a heterologous transmembrane region.

✓77. (New) The method of claim 64, which is a method for stimulating an immune response.

✓78. (New) The method of claim 64, which is a method for treating a neoplastic disease.